

PATENT  
Customer No. 22,852  
Attorney Docket No. 05725.0827-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Veronique DOUIN et al. ) Group Art Unit: 1617  
Application No.: 09/759,165 ) Examiner: Shengjun Wang  
Filed: January 16, 2001 )  
For: COSMETIC COMPOSITION ) Confirmation No.: 9808  
COMPRISING AN AMPHOTERIC )  
STARCH AND A CATIONIC )  
CONDITIONER, AND USES )  
THEREOF )

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, Frederic WOODLAND, do hereby make the following declaration:

1. I am a French citizen, residing at Paris 75018, 11 rue Boinod (France).

2. I have been awarded a Master in Chemistry from ECPM Strasbourg

(France) in 2004.

3. I have been employed by L'ORÉAL since 06/13/2005, and I presently have the title of research engineer at L'ORÉAL. During my employment at L'ORÉAL, I have been engaged in research relating to Hair conditioning.

4. I have read and understand the rejections presented in the Final Office

Action mailed October 15, 2008, in U.S. Patent Application No. 09/759,165. I have also read what I understand is present claim 1. I have no patent law training but as it has

been explained to me, the claim is directed to a cosmetic composition, containing a cosmetically acceptable medium, at least one amphoteric starch chosen from those recited in part (a) of claim 1 and at least one cationic conditioner chosen from cationic silicones and quaternary ammonium salt surfactants recited in part (b) of claim 1.

5. Based on those readings and understandings, I understand that the following comparative experiments compared a composition of claim 1 (inventive composition) versus a composition not of claim 1 (comparative composition). Given my education and experience, particularly in the area of cosmetic compositions, I consider myself able to provide the following testimony based on those experiments, which were either conducted by me or conducted under my supervision.

#### COMPARATIVE TESTS

##### I. Cationic guar gum (comparative) vs. quaternary ammonium salts of formula XIV (inventive)

6. Inventive composition containing quaternary ammonium salts of formula XIV and Comparative composition containing cationic guar gum were prepared according to Table I:

Table 1

Composition	Composition A (Comparative) (g% active material)	Composition B (Inventive) (g% active material)
Potato starch modified with 2-chloroethylaminodipropionic acid neutralized with sodium hydroxide (Structure Solance from National Starch)	1.5	1.5
Hydroxypropyl guar trimethyl ammonium chloride (Jaguar C13 S)	0.5	-

from Rhodia)		
Behenyltrimethyl ammonium chloride (Genamin KDMF from Clariant)		0.5
Water	Qs 100	Qs 100

In ten separate experiments, Composition A was applied to half head of hair and Composition B was applied to the other half head of hair in the amount of 6 g of the composition per half head. The compositions were left to stand on the hair for two minutes and were then rinsed off with water.

One expert evaluated the ease of disentanglement and the suppleness of the wet hair treated with Composition A (comparative) or Composition B (inventive), on a scale of 0 (difficult to disentangle, not supple) to 5 (easy to disentangle, very supple). 10 models (heads) were evaluated and the results are given below as an average of the scores for the 10 models tested with each composition:

	A (Comparative)	B (Inventive)	% difference	p- value*
Suppleness	2.1	2.7	+28.5%	0.01
Ease of disentanglement	1.8	2.8	+55%	0.00

\* Wilcoxon test was used for statistical analysis. A p-value of 0.00 or 0.01 indicates that the difference between the compositions was statistically significant at 100% or 99.9% confidence level.

## II. Cationic guar gum (comparative) vs. Cationic amino silicone (inventive)

7. Inventive composition containing cationic amino silicone and Comparative composition containing cationic guar gum were prepared according to Table 2:

**Table 2**

Composition	Composition A (Comparative) (g% active material)	Composition B (Inventive) (g% active material)
Potato starch modified with 2-chloroethylaminodipropionic acid neutralized with sodium hydroxide (Structure Solance from National Starch)	1.5	1.5
Hydroxypropyl guar trimethyl ammonium chloride (Jaguar C13 S from Rhodia)	0.5	-
Polydimethyl/methyl aminoethyl aminopropyl siloxane (SME 253)	-	0.5
Water	Qs 100	Qs 100

In ten experiments, Comparative composition A was applied to half head of hair and Inventive composition B was applied to the other half head of hair in the amount of 6 g of the composition per half head. The compositions were left to stand on the hair for two minutes and were then rinsed off with water.

One expert evaluated the ease of disentanglement and the suppleness of the wet hair treated with Composition A (comparative) or Composition B (Inventive), on a scale of 0 (difficult to disentangle, not supple) to 5 (easy to disentangle, very supple). 10 model (heads) were evaluated and the results are given below as an average of the scores for the 10 models tested with each composition:

	A (Comparative)	B (Inventive)	% difference	p- value*
<b>Suppleness</b>	2.1	3.3	+57%	0.00
<b>Ease of disentanglement</b>	1.9	3.1	+63%	0.00

\* Wilcoxon test was used for statistical analysis. A p-value of 0.00 or 0.01 indicates that the difference between the compositions was statistically significant at 100% or 99.9% confidence level.

**III. Cationic guar gum (comparative) vs. Quaternary ammonium salts of formula XV (inventive)**

8. Inventive composition containing quaternary ammonium salts of formula XV and Comparative composition containing cationic guar gum were prepared according to Table 3:

**Table 3**

Composition	Composition A (Comparative) (g% active material)	Composition B (Inventive) (g% active material)
Potato starch modified with 2-chloroethylaminodipropionic acid neutralized with sodium hydroxide (Structure Solance from National Starch)	1.5	1.5
Hydroxypropyl guar trimethyl ammonium chloride (Jaguar C13 S from Rhodia)	0.5	-
methyl alkyl alkylamidoethyl imidazolinium Methylsulfate-Quaternium -87 (Varisoft W 575 PG from Evonik Goldsehmidt)	-	0.5
Water	Qs 100	Qs 100

In ten experiments, Comparative composition A was applied to half head of hair and Inventive composition B was applied to the other half head of hair in the amount of 6 g of the composition per half head. The compositions were left to stand on the hair for two minutes and were then rinsed off with water.

One expert evaluated the ease of disentanglement and the suppleness of the wet hair treated with Composition A (comparative) or Composition B (Inventive), on a scale of 0 (difficult to disentangle, not supple) to 5 (easy to disentangle, very supple). 10 model (heads) were evaluated and the results are given below as an average of the scores for the 10 models tested with each composition:

	A (Comparative)	B (Inventive)	% difference	p- value*
Suppleness	2.5	2.9	+16%	0.15
Ease of disentanglement	2.2	2.7	+22%	0.14

\* Wilcoxon test was used for statistical analysis. A p-value of 0.15 or 0.14 indicates that the difference between the compositions was statistically significant at 85% or 86% confidence level.

9. As shown in the foregoing tests, hair treated with the three compositions of the invention showed statistically significantly improved hair suppleness and ease of disentanglement over the Comparative composition.

10. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under

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Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: 03/24/2009

By:   
Frederic WOODLAND